**308.1 Institutional Group I.** Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which people are cared for or live in a supervised environment, having physical limitations because of health or age are harbored for medical treatment or other care or treatment, or in which people are detained for penal or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-1, I-2, I-3 or I-4.

**Exceptions:** 1. Group I Occupancies shall shall not include buildings used only for private residential purposes for a family group.

- 2. Where occupancies house both ambulatory and non-ambulatory persons, the more restrictive requirements shall apply.
- 3. Buildings housing protective social-care homes or in occupancies housing inmates who are not restrained need not be of one-hour fire- resistive construction when not more than two stories in height. In no case shall individual floor areas exceed 3,000 square feet (279m²). The fire-resistive protection of the exterior walls shall not be less than one hour where such walls are located within 3 feet(914m) of the property line. Openings within such walls are not permitted. Openings in exterior nonrated walls need not be protected.

**Purpose/Rationale:(SFM)** The above exception **1.** is brought over from the CBC to clearly indicate where the "I" Occupancy class cannot be applied. The model code does not specify any more restrictive condition between areas housing ambulatory and non-ambulatory. This is clarified in exception **2.** 

**308.2 Group I-1.** This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

Residential board and care facilities
Assisted living facilities
Halfway houses
Group homes
Congregate care facilities
Social rehabilitation facilities
Alcohol and drug centers
Convalescent facilities

A facility such as the above with five or fewer persons shall be classified as a Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2. A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4.

**Purpose/Rationale:** (N) The Clarification of R occupancies in the last paragraph is not needed as these occupacies are clearly defined in the Section 310 of the IBC and the Residential Building Code.

**308.3 Group I-2.** This occupancy shall include buildings and structures used for medical, surgical, psychiatric, nursing or custodial care on a 24-hour basis for more than five persons who are not capable of self-preservation classified as non-ambulatory or bedridden. This group shall include, but not be limited to, the following:

Hospitals

Nursing homes (both intermediate care facilities and skilled nursing facilities) Mental hospitals

**Detoxification facilities** 

Child care facility - care to children 6 years of age or less

A facility such as the above with five or fewer persons shall be classified as Group R-3 or shall comply with the *International Residential Code* in accordance with Section 101.2.-

**Purpose/Rationale:** (N) Under the IBC there is no distinction as to ambulatory patients that are not capable of unassisted self preservation as defined previously in the CBC Code under the I1.2 occupancy class. "Non-ambulatory or bedridden" is more specific than model code in describing this occupancy class.

Child care facility for children 6 years in age or less coincides with the existing CBC as amended by SFM. This was relocated for better clarification and to release the 308.3.1 numbering to add the Group I-2.1 occupancy class.

The last sentence was stricken as it is not needed. The R-3 occupancy is adequately defined in the "R" section of the IBC and the Residential Building Code.

308.3.1 Child care facility. A child care facility that provides care on a 24-hour basis to more than five children 2<sup>+</sup>/<sub>2</sub> years of age or less shall be classified as Group I-2.

**Purpose/Rationale:** This section was admended per existing CBC SFM regulations and inserted into the occupancy list under the Detoxication facilities. The age of children was changed to 6 years with the number of children changed to 6 to aline with current CBC definition to maintain consistancey.

308.3.1 Group I-2.1 Ambulatory Care Facility. Health-care centers for ambulatory patients recieving outpatient medical care that may render the patient incapable of unassisted self-preservation (each tenant space accommodating more than five such patients).

**308.4 Group I-3.** This occupancy shall include buildings and structures that are inhabited by more than five persons who are under restraint or security. An I-3 facility is occupied by persons who are generally incapable of self-preservation due to security measures not under the occupants' control. This group shall include, but not be limited to, the following:

Prisons
Jails
Reformatories
Detention centers
Correctional centers
Prerelease centers

Buildings of Group I-3 shall be classified as one of the occupancy conditions indicated in Sections 308.4.1 through 308.4.5 (see Section 408.1). <u>Juvenile halls,camps and jails or lockups used for the detention of minors.</u>

**Purpose/Rationale:** (N) The IBC does not have this ocuppancy class per the CBC model code. This occupancy is needed to stay consistant with current occupancy classes for California. It addresses ambulatory patients where the I-2 category specifically address on-ambulatory and bedridden. Juvenile halls, camps, and jails for minors as well as local detention facilities in CBC I-3 occupancies need to be addressed.

403.1.1 In addition to other applicable requirements of these regulations, the provisions of this section shall apply to every new building of any type of construction or occupancy having floors used for human occupancy located more than 75 feet 22 860 mm) above the lowest level of building access.

# **Exceptions:**

- 1. Hospitals as defined in Section 1250 of the Health and Safety Code.
- 2. <u>The following structures, while classified as high-rise buildings, shall not be subject to the provisions of this section, but shall conform to all other applicable provisions of these regulations.</u>
  - 2.1. <u>Buildings used exclusively as open parking garages.</u>
  - 2.2. <u>Buildings where all floors above 75 feet (22 860 mm) are used exclusively</u> as open parking garages.
  - 2.3. <u>Floors of buildings used exclusively as open parking garages and located</u> above all other floors used for human occupancy.
  - 2.4. <u>Buildings such as power plants, lookout towers, steeples, grain houses and similar structures with noncontinuous human occupancy, when so determined by the enforcing agency.</u>
  - 2.5. Buildings used exclusively for jails and prisons.

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Note: It is the intent of this subsection that, in determining the level from which the highest occupied floor is to be measured, the enforcing agency should exercise reasonable judgment, including consideration of overall overall accessibility to the building by fire department personnel and vehicular equipment. When a building is located on sloping terrain and there is building access on more than one level, the enforcing agency may select the level that provides the most logical and adequate fire department access.

**403.1.2** For the purposes of this subsection, "building access" shall mean an exterior door opening conforming to all of the following:

- 1. Suitable and available for fire department use.
- 2. Located not more than 2 feet (610 mm) above the adjacent ground level.
- 3. <u>Leading to a space, room or area having foot traffic communication capabilities</u> with the remainder of the building.
- 4. Designed to permit penetration through the use of fire department forcible-entry tools and equipment unless other approved arrangements have been made with the fire authority having jurisdiction.

403.1.3 As used herein, "new building" shall mean a high-rise structure, the construction of which is commenced on or after July 1, 1974. For the purpose of this section, construction shall be deemed to have commenced when plans and specifications are more than 50% complete and have been presented to the local jurisdiction prior to July 1, 1974. Unless all provisions of this section have been met, the construction of such buildings shall commence on or before January 1, 1976.

## **Purpose/Rationale:**

(S) Statutory provisions should be maintained.

(Sec. 404.5)

3. <u>In other than Group I Occupancies</u>, the adjacent spaces of any three floors of the atrium shall not be required to be separated from the atrium where such spaces are included in the design of the smoke control system.

## **Purpose/Rationale:**

(N) Acute care hospitals and skilled nursing facilities must, in addition to state and local building codes, also comple with NFPA 101-2000 (Life Safety Code) requirements enforced by CMS and/or JCAHO. Coordination of Building Code and Fire Code requirements with NFPA 101 provisionsis essential for these health care facilities. Adopting provisions consistent with NFPA 101 requirements incurs no additional costs and avoids future liability related to noncompliance with federally mandated requirements.

IBC language is in conflict with NFPA 101.

404.9 Group I Occupancy Means of Egress. Required means of egress from sleeping rooms in Group I Occupancies other than jails, prisons and reformatories shall not pass through the atrium.

## **Purpose/Rationale:**

Unlike the UBC, the IBC allows two story atria. Smaller atria afford less volume for smoke to accumulate. The IBC no longer limits the combustibility of the atrium contents as imposed by the UBC. IBC atria are smaller and can contain more combustibles than under the provisions of the UBC. The prohibition for the required egress of patients through an atria should be maintained.

- 407.2.1 Spaces of unlimited area. Waiting areas and similar spaces constructed as required for corridors shall be permitted to be open to a corridor, only where all of the following criteria are met:
  - 1. The spaces are not occupied for patient sleeping units, treatment rooms, hazardous or incidental use areas as defined in Section 508.2 listed in table 508.2
  - **1.** 2. The open space is protected by an automatic <u>fire smoke</u> detection system installed in accordance with <u>Section 907 907.2.6.2</u>
  - The corridors onto which the spaces open, in the same smoke compartment, are protected by an automatic <u>fire smoke</u> detection system installed in accordance with Section 907 907.2.6.2, or and the smoke compartment in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.
  - 4. The space is arranged so as not to obstruct access to the required exits.

    5. Each space is located to permit direct visual supervision by the facility staff.

**Purpose/Rationale:** (N) Acute care hospitals and skilled nursing facilities must, in addition to State and local building codes, also comply with NFPA 101-2000 (Life Safety Code) requirements enforced by CMS and/or JCAHO. Coordination of Building Code and Fire Code requirements with NFPA 101 provisions is essential for these health care facilities. Adopting provisions consistent with NFPA 101 requirements incurs no additional costs and avoids future liability related to noncompliance with federally mandated requirements.

Incidental use areas are not defined in Section 508.2 however they are listed in Table 508.2.

407.2.2 Nurses' stations. Spaces for doctors' and nurses' charting, communications and related clerical areas shall be permitted to be open to the corridor, when such spaces are constructed as required for corridors, when the fire area is provided with a fire sprinkler system throughout complying with Sections 903.3.1.1 and such spaces are constructed as required for corridors. A minimum of one (1) smoke detector interconnected to the facility fire alarm system shall be installed directly above the nurses' station.

#### **Purpose / Rational:**

(N) The IBC does not require smoke detection directly above the nurse station or fire sprinklers in the fire area with the nurse station. Removal of this requirement will create problems in correlating Title 19 CCR limitations on what combustible loading is allowed in a nurse station open to an exit egress system as well as reduce the current levels of protection.

Addition of smoke detection and fire sprinklers at nurse stations open to the corridor will assist in maintaining the current level of protection now found in Title 24/19 CCR and allow for proper correlation between the IBC, IFC, and Title 19 CCR.

A great many of the Group I-2 corridor protection requirements have been reduced or deleted from the IBC with the presumption that the Group I-2 will be provided with fire sprinkler protection. This is however not always true. Hospitals are extremely dynamic buildings undergoing constant change. Existing hospitals undergoing remodeling may not be protected by fire sprinklers. Clarification is necessary to indicate that, when an area is not protected by fire sprinklers, reductions in corridor protection are not appropriate.

In addition, Title 19, CCR, Sec. 3.11(b) prohibits combustibles exposed to the corridor. Fire sprinkler protection for nursesâ019 stations is required in order to provide additional fire protection in these office spaces when they are located in the exit access corridor.

**407.3 Corridor walls.** Corridor walls shall be constructed as smoke partitions in accordance with Section 710.

Exception: In existing Group I-2, I-2.1 occupancies, the corridor fire resistance rating shall be 1-hour in accordance with Section 1017 when the fire area is not equipped with an automatic sprinkler system in accordance with Section 903.3.1.1.

## **Purpose/Rationale:**

This requirement is important for existing construction where no sprinkler protection was provided based on the date of contruction prior to March 4, 1972. It provides an extra degree of protection for the means of egress system and maintains the existing code requirements per the UBC. This is a carry over of statutory requirements per Sec. 407.5.

407.3.1 Corridor doors. Corridor doors, other than those in a wall required to be rated by <u>Section 508.2</u> or for the enclosure of a vertical opening or an exit, shall not have a required fire protection rating and shall not be required to be equipped with self-closing or automatic-closing devices, but shall provide an effective barrier to limit the transfer of smoke. <u>and Corridor doors shall be equipped with a gasket installed so as to provide a seal where the door meets the stop on both sides and across the top and shall be equipped with positive latching. Roller latches are not permitted. Other doors shall conform to <u>Section 715.4.</u></u>

## **Purpose/Rationale:**

(N) In Group I-2, corridor doors shall provide an effective barrier to limit the transfer of smoke. There are no additional requirements. Elsewhere in the code (715.4.3) additional requirements referencing NFPA 252, UL 10C, UL1784 and NFPA 105 assure doors will be tight fitting. No such requirement applies to Group I-2 corridor doors. A

seal is needed to assure these unlabeled, untested doors will provide an effective smoke barrier.

**407.3.1.1 Swing of Corridor Doors.** Corridor doors, other than those equipped with self-closing or automatic-closing devices, shall not swing into the required width of corridors.

### **Purpose/Rationale:**

(N) Doors that do not have door-closers should not swing into the required width of the corridor. The hospital corridor system is used for the relocation of patients from a contaminated smoke zones to a clean smoke zones. The corridors are equipped with handrails to assist ill and recuperating patients. Many doors installed in hospitals and nursing homes have leafs 4 feet in width. When left open, these doors consume a great deal of space needed for essential services. In addition, open doors and their hardware create obstructions and appendages that impede traffic.

**407.4 Smoke barriers.** Smoke barriers shall be provided to subdivide every story used by patients for sleeping or treatment and to divide other stories with an occupant load of 50 or more persons, into at least two smoke compartments. Such stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2092 m²) and the travel distance from any point in a smoke compartment to a smoke barrier door shall not exceed 200 feet (60 960 mm). The smoke barrier shall be in accordance with Section 709 and 909.5. **Purpose/Rationale:(N)** Additional reference is added to direct engineering guidelines for construction.

407.4.2 Independent egress. <u>At least two</u> means of egress shall be provided from each smoke compartment created by smoke barriers. <u>Means of egress may pass through</u> <u>adjacent compartments provided it does not</u> return through the smoke compartment from which means of egress originated.

**Purpose/Rationale:(N)** This to clarify exiting from a smoke compartment. The IBC is not clear on the this as was clearly detailed in the CBC. The LSC Code Section 18.2.4.3 agrees with this clarification.

**407.5 Automatic sprinkler system.** Smoke compartments containing patient sleeping units shall be equipped throughout with an automatic fire sprinkler system in accordance with Section 903.3.1.1. The smoke compartments shall be equipped with approved quick response or residential sprinklers in accordance with Section 903.3.2. [F]

Every facility as specified herein wherein more than six guests or patients are housed or cared for on the premises on a 24-hour shall have installed and maintained in an operable condition in every building or portion thereof where guests or patients are housed, an automatic sprinkler system of a type approved by the state fire marshal. The provisions of this subsection shall apply to every person, firm or corporation establishing, maintaining or operating a hospital, children's home, children's nursery or institution, or a home or institution for the care of aged or senile persons, or any sanitarium or institution for insane or mentally retarded persons and any nursing or convalescent home, and to any state-owned or state-occupied building used for any of the types of facilities specified herein.

EXCEPTIONS: 1. This section shall not apply to homes or institutions for the 24-hour-per-day care of ambulatory children if all of the following conditions are satisfied:

- 1.1 The buildings or portions thereof in which children are housed are not more than two stories in height and are constructed and maintained in accordance with regulations adopted by the state fire marshal.
- 1.2 The buildings or portions thereof housing more than six such children shall have installed and maintained in an operable condition therein, a fire alarm system of a type approved by the state fire marshal. Such system shall be activated by detectors responding to invisible particles of combustion other than heat, except that detectors used in closets, usable under-floor areas, storage rooms, bathrooms, attached garages, attics, plenums, laundry rooms and rooms of similar use, may be heat-responsive devices.
- 1.3 The building or portions thereof do not house mentally ill or mentally retarded children.
- 2. This section shall not apply to any one-story building or structure of an institution or home for the care of the aged providing 24-hour-per-day care if such building or structure is used or intended to be used for the housing of no more than six ambulatory aged persons. Such buildings or institutions shall have installed and maintained in an operable condition herein a fire alarm system of a type approved by the state fire marshal. Such system shall be activated by detectors responding to either visible or invisible particles of combustion other than heat, except that detectors used in closets, usable under-floor areas, storage rooms, bathrooms, attached garages, attics, plenums, laundry rooms and rooms of similar use, may be heat-responsive devices.
- 3. This section shall not apply to occupancies or any alterations thereto conforming to the construction provisions of this exception which were under construction or in existence on March 4, 1972. "Under construction" as used in this exception shall mean that actual work had been performed on the construction site and shall not be construed to mean that the hospital, home, nursery, institution, sanitarium or any portion thereof, was or is in the planning stage. The provisions of this exception shall apply to those buildings or structures having bearing walls and structural flame protected in accordance with the provisions of Column Type 1A of Table 601.

When a new addition is to be made to an unsprinklered building or structure as permitted by this subsection, such new addition shall be sprinklered as required by this section and shall be separated from the existing building or structures by not less than a two-hour fire-resistive occupancy separation.

NOTE: The provisions of this section do not apply to any facility used to house six or less persons on the premises.

407.5.1 When a new addition is to be made to an unsprinklered building or structure as permitted by this subsection, such new addition shall be sprinklered as required by this section and shall be separated from the existing building or structures by not less than a two-hour fire-resistive occupancy separation.

When a sprinkler system is added to an existing unsprinklered building or structure, the sprinklered area(s) shall be separated from the remainder of the building by not less than a one-hour fire-resistive occupancy separation.

**NOTE:** The provisions of this section do not apply to any facility used to house six or less persons on the premises.

4. In detention facilities where inmates are not restrained

## Purpose / Rational:

Carryover of statutory language from Health and Safety Code Section 13113 and Title 24 CCR. (Fire Sprinklers Health Care)

**407.6 Automatic smoke detection.** Corridors in nursing homes (both intermediate care and skilled nursing facilities), detoxification facilities and spaces permitted to be open to the corridors by Section 407.2 shall be equipped with an automatic fire detection system. Hospitals shall be equipped with smoke detection as required in Section 407.2. [F]

## **Exceptions:**

\*\*I. Corridor smoke detection is not required where patient sleeping units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each patient sleeping unit and an audible and visual alarm at the nursing station attending each unit.

2. Corridor smoke detection is not required where patient sleeping unit doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function

Smoke detectors shall be installed in patient and client sleeping rooms. Actuation of such detectors shall cause a visual display on the corridor side of the room in which the detector is located and shall cause an audible and visual alarm at the respective nurses' station. A nurse call system listed for this function is an acceptable method of providing the audible and visual alarm at the respective nurses station.

EXCEPTION: In rooms equipped with existing automatic door closers having integral smoke detector, the integral detector may substitute for the room smoke detector, provided it meets all the required alerting function.

Note: Operation of the smoke detector shall not include any alarm verification feature.

### Purpose / Rational

The IBC does not require smoke detection in patient or client sleeping rooms when the corridor is provided with smoke detection.

Removeal of the exceptions and the addition of a new charging statement maintains the current level of protection now found in the CBC and CFC.

**407.7 Secured yards.** Grounds are permitted to be fenced and gates therein are permitted to be equipped with locks, provided that safe dispersal areas having 30 net square feet (2.8 m²) for bed and litter patients and 6 net square feet (0.56 m²) for ambulatory patients and other occupants are located between the building and the fence. Such provided safe dispersal areas shall not be located less than 50 feet (15 240 mm) from the building they serve. Each safe dispersal area shall have a minimum of two exits. The aggregate clear width of exits from a safe despersal area shall be determined on the basis of not less than one exit unit of 22 inches (559 mm) for each 500 persons to be accomodated, and no exit shall be less than 44 inches (1118 mm) in width. Gates shall not be installed across corridors or passageways leading to such dispersal areas unless they comply with egress requirements. Keys to gate locks shall be provided in accordance with the Fire Code.

**Purpose/Rationale:** (N) There are no provisions in the IBC for egress from a safe dispersal area. egress must be provided and located so as not to return the evacuated in the direction of danger. Patients should not be expected to remain in exterior locations for extended time periods. There must be provisions for removing and transporting evacuated patients to other medical facilities.

**407.8 Special Hazards.** Storage and handling of flammable, combustible liquids and hazadous materials shall be in accordance with the California Fire Code.

All exterior openings in a boiler room or room containing central heating equipment, if located below openings in another story, or if less than 10 feet (3048 mm) from other doors or windows of the same building, shall be protected by a fire assembly having a three-fourths-hour fire protection rating.

**Purpose/Rationale:** A direction within the code should be given as to the requirements of handling special hazards in this section for the I-2 occupancy. The IBC doesn't give any direction.

**508.2 Incidental uses.** Incidental use areas shall comply with the provisions of this section.

**Exception:** Incidental use areas within and serving a dwelling unit are not required to comply with this section.

#### TABLE 508.2 INCIDENTAL USE AREAS

ROOM OR AREA	SEPARATION AND/OR

	PROTECTION
Furnace room where any	1 hour or provide
piece of equipment is over	automatic fire-
400,000 Btu per hour input	extinguishing system *
Rooms with boilers where	1 hour or provide
the largest piece of	automatic fire-
equipment is over 15 psi and 10 horsepower	extinguishing system <u>*</u>
Refrigerant machinery	1 hour or provide
rooms	automatic sprinkler
	system
Parking garage (Section	2 hours; or 1 hour and
406.2)	provide automatic fire-
,	extinguishing system
Hydrogen cut-off rooms,	1-hour in Group B, F, M, S
not classified as Group H	and U occupancies. 2-
	hour in Group A, E, I and
	R occupancies.
Incinerator rooms	2 hours and automatic
	sprinkler system
Paint shops, not classified	2 hours; or 1 hour and
as Group H, located in	provide automatic fire-
occupancies other than Group F	extinguishing system
Laboratories and vocational	1 hour or provide
shops, not classified as	1 hour or provide automatic fire-
Group H, located in Group	extinguishing system*
E or I-2 occupancies	oxungaishing system_
Laundry rooms over 100	1 hour or provide
square feet	automatic fire-
	extinguishing system <u>*</u>
Storage rooms over 100	1 hour or provide
square feet	automatic fire-
	extinguishing system <u>*</u>
Group I-3 cells equipped	1 hour
with padded surfaces	
Group I-2 waste and linen	1 hour
collection rooms	
Waste and linen collection	1 hour or provide
rooms over 100 square	automatic fire-
feet Ctationary land a sid battom	extinguishing system*
Stationary lead-acid battery systems having a liquid	1-hour in Group B, F, M, S and U occupancies. 2-
capacity of more than 100	hour in Group A, E, I and
gallons used for facility	
IUAIIUI IS USEU IUI IAUIIIV	R occupancies.*
,	R occupancies.*
standby power, emergency power or uninterrupted	R occupancies.*

\* 1-hour and automatic sprinkler protection for I-2 occupancies.

**707.2 Shaft enclosure required.** Openings through a floor/ceiling assembly shall be protected by a shaft enclosure complying with this Section.

## **Exceptions:**

- 1. A shaft enclosure is not required for openings totally within an individual residential dwelling unit and connecting four stories or less.
- 2. <u>In other than Groups I-2 and I-3, a</u> A shaft enclosure is not required in a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 for an escalator opening or stairway that is not a portion of the means of egress protected according to Item 2.1 or 2.2:
- 2.1. Where the area of the floor opening between stories does not exceed twice the horizontal projected area of the escalator or stairway and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Groups B and M, this application is limited to openings that do not connect more than four stories.
- 2.2. Where the opening is protected by approved power-operated automatic shutters at every penetrated floor. The shutters shall be of noncombustible construction and have a fire-resistance rating of not less than 1.5 hours. The shutter shall be so constructed as to close immediately upon the actuation of a smoke detector installed in accordance with Section 907.11 and shall completely shut off the well opening. Escalators shall cease operation when the shutter begins to close. The shutter shall operate at a speed of not more than 30 feet per minute (152.4 mm/s) and shall be equipped with a sensitive leading edge to arrest its progress where in contact with any obstacle, and to continue its progress on release therefrom.
- 3. A shaft enclosure is not required for penetrations by pipe, tube, conduit, wire, cable and vents protected in accordance with Section 712.4.
- 4. A shaft enclosure is not required for penetrations by ducts protected in accordance with Section 712.4. Grease ducts shall be protected in accordance
- with the International Mechanical Code.
- 5. In other than Group H occupancies, a shaft enclosure is not required for floor openings complying with the provisions for atriums in Section 404.
- 6. A shaft enclosure is not required for approved masonry chimneys where annular space protection is provided at each floor level in accordance with Section 717.2.5.
- 7. In other than Groups I-2, <u>I-2.1</u> and I-3, a shaft enclosure is not required for a floor opening or an air transfer opening that complies with the following:
- 7.1. Does not connect more than two stories.
- 7.2. Is not part of the required means of egress system, except as permitted in Section 1020.1.
- 7.3. Is not concealed within the building construction.
- 7.4. Is not open to a corridor in Group I and R occupancies.
- 7.5. Is not open to a corridor on nonsprinklered floors in any occupancy.
- 7.6. Is separated from floor openings and air transfer openings serving other floors by construction conforming to required shaft enclosures.
- 7.7. Is limited to the same smoke compartment.

- 8. A shaft enclosure is not required for automobile ramps in open and enclosed parking garages constructed in accordance with Sections 406.3 and 406.4, respectively.
- 9. A shaft enclosure is not required for floor openings between a mezzanine and the floor below.
- 10. A shaft enclosure is not required for joints protected by a fire-resistant joint system in accordance with Section 713.
- 11. A shaft enclosure shall not be required for floor openings created by unenclosed stairs or ramps in accordance with Exception 8 or 9 in Section 1020.1.
- 12. Floor openings protected by floor fire doors in accordance with Section 711.8.
- 13. Where permitted by other sections of this code

**709.5 Openings.** Openings in a smoke barrier shall be protected in accordance with Section 715.

Exception: In Group I-2, where doors are installed across corridors, a pair of opposite-swinging doors without a center mullion or horizontal sliding doors that comply with section 1008.1.3.3 shall be installed. shall be installed having vision panels with fire protection rated glazing materials in fire protection rated frames, the area of which shall not exceed that tested. Vision panels consisting of fire-rated glazing in approved frames shall be provided in each cross-corridor swinging door and at each cross-corridor horizontal-sliding door in a smoke barrier. The doors shall be close fitting within operational tolerances, and shall not have undercuts, louvers or grilles. The Swinging doors shall have head and jamb stops; and astragals or rabbets at meeting edges, and Doors installed across corridors shall be automatic closing by smoke detection in accordance with Section 715.4.7.3. Positive-latching devices are not required. Doors installed across corridors shall comply with Section 1008.1.1.

**709.8 Ducts and air transfer openings.** Penetrations in a smoke barrier by ducts and air transfer openings shall comply with Section 716 and Section 909.5.2.

**Purpose/Rationale:** (N) The above reference further clarifies opening protection in smoke barrier walls.

**710.2 Materials.** The walls shall be of materials permitted by the building type of construction. In Group I-2 and I-2.1, smoke partitions shall have framing covered with noncombustible materials having an approved thermal barrier with an index of not less than 15 in accordance with FM 4880, UL 1040, NFPA 286 or UL 1715.

## Purpose / Rational:

(N) IBC requires walls used for smoke partitions be made of materials permitted by the building type of construction. The IBC has no requirements for interior partitions for type of construction in Table 601. The proposed provision requires smoke partition walls be covered with drywall membrane. This is the method currently used to provide smoke and fire rated partitions. Without this guidance, there would be no clear direction for the construction of smoke partitions.

715.4.7.3 Smoke-activated doors. When a Automatic-closing doors are installed in the following locations, they shall be automatic closing by actuation of the fire alarm system, actuation of smoke detectors installed in accordance with Section 907.10, activation of the sprinkler system installed in accordance with Section 903.1 or by loss of power to the smoke detector or hold-open device. Doors that are automatic closing by smoke detection shall not have more than a 10-second delay before the door starts to close after the smoke detector is actuated:

**Purpose/Rationale: (N)** This requirement is consistant with the Life Safety Code Sec. 18.2.4.3 and the existing CBC Sec. 308.2.1 (5.).

Acute care hospitals and skilled nursing facilities must, in addition to state and local building codes, also comply with NFPA 101-2000 (Life Safety Code) requirements enforced by CMS and/or JCAHO. Coordination of Building Code and Fire Code requirements with NFPA 101 provisions is essential for these health care facilities. Adopting provisions consistent with NFPA 101 avoids future liability related to noncompliance with federally mandated requirements.

11. Doors installed in smoke partitions in accordance with Section 710.5.3.

## (Section 715,4,7,3)

12. Doors installed in walls required to be fire rated in accordance with Table 302.1.1

13. Doors installed in walls required to be fire rated in accordance with Table 302.3.2

## Purpose / Rational:

(N) Additional items are needed to include other locations where automatic-closing doors require smoke-detection activation

**F] 903.2.5 Group I.** An automatic sprinkler system shall be provided throughout buildings with a Group I fire area <u>unless otherwise exempted by Chapter 3 of the Building Code.</u>

**Exception:** An automatic sprinkler system installed in accordance with Section 903.3.1.2 or 903.3.1.3 shall be allowed in Group I-1 facilities.

### **Purpose / Rational:**

(s) Needed for reference to statutory provisions.

907.2.6 Group I. A manual fire alarm system shall be installed in Group I occupancies. An electrically supervised, automatic smoke detection system shall be provided in accordance with Sections 907.2.6.1 and 907.2.6.2.

An approved manual and automatic fire alarm system shall be provided for Group I-2 Occupancies. Audible alarm devices shall be used in nonpatient areas. Visible alarm devices may

be used in lieu of audible devices in patient-occupied areas. For installation requirements, see the *California* Fire Code

**Exception:** Manual fire alarm boxes in resident or patient sleeping areas of Group I-1 and I-2 occupancies shall not be required at exits if located at all nurses' control stations or other constantly attended staff locations, provided such stations are visible and continuously accessible and that travel distances required in Section 907.4.1 are not exceeded.

<u>In I-2 Occupancies</u>, audible devices placed in patient areas shall be only chimes or similar sounding devices for alerting staff.

In occupancies housing nonambulatory persons in which restraint is practiced, staff and attendants shall be provided and housed or located in such a manner that such supervisory personnel will also be alerted upon activation of any detector required by this section.

When an entire facility is used for the housing of persons, none of whom are physically or mentally handicapped or nonambulatory, and are between the ages of 18 and 64, the buildings or structures comprising such facility shall be exempt from the provisions of this subsection relating to the installation of an automatic fire alarm system.

Purpose / Rational

907.2.6.3 Group I-3. Group I-3 occupancies shall be equipped with a manual and automatic fire alarm system installed for alerting staff. [F]

All local detention facilities within the scope of Section 6031.4 of the Penal Code shall have a state fire marshal-approved and listed automatic fire alarm system which responds to the products of combustion other than heat.

Exception: A manual fire alarm-initiating device shall be installed in all guard control stations and shall be capable of alerting personnel in a central control point to the presence of fire or smoke within the facility.

Purpose / Rational

**[F] 909.5.2 Opening protection.** Openings in smoke barriers shall be protected by <u>self-closing devices or</u> automatic-closing devices actuated by the required controls for the mechanical smoke control system. Door openings shall be protected by fire door assemblies complying with Section 715.4.3.

### **Exceptions:**

- 1. Passive smoke control systems with automatic-closing devices actuated by spot-type smoke detectors listed for releasing service installed in accordance with Section 907.10. When used in a Group I-2, such detectors shall activate the fire alarm system.
- 2. Fixed openings between smoke zones that are protected utilizing the airflow method in other than Group I-2.

- 3. In Group I-2, where doors are installed across corridors, a pair of opposite-swinging doors without a center mullion or horizontal sliding doors that comply with section 1008.1.3.3 shall be installed. shall be installed having vision panels with fire-protection-rated glazing materials in fire-protection-rated frames, the area of which shall not exceed that tested. Vision panels consisting of fire-rated glazing in approved frames shall be provided in each cross-corridor swinging door and at each cross-corridor horizontal-sliding door in a smoke barrier. The doors shall be close fitting within operational tolerances, and shall not have undercuts, louvers or grilles. The Swinging doors shall have head and jamb stops, and astragals or rabbets at meeting edges, and Doors installed across corridors shall be automatic closing by smoke detection in accordance with Section 715.4.7.3. Positive-latching devices are not required. Doors installed across corridors shall comply with Section 1008.1.1.
- 4. Group I-3.
- 5. Openings between smoke zones with clear ceiling heights of 14 feet (4267 mm) or greater and bank-down capacity of greater than 20 minutes as determined by the design fire size.
- 6. In Group I-2, smoke damper activation may be accomplished by a fire alarm control panel provided that an open area smoke detection system as required by the California Fire Code is provided within all areas served by an HVAC system.

# Purpose/Rationale:

- (N) These proposals are necessary to clarify intent, simplify compliance and maintain consistency in the requirements for smoke control and related control devices used for smoke control in health care occupancies located in Chapter 7 and NFPA 101.
- .This proposal allows the use of both automatic-closing and self-closing doors in smoke barrier walls. The exclusive use of automatic-closing doors at locations such has restrooms, storage rooms and mechanical rooms is costly and impractical

Exception 1 has been amended to require smoke detectors provided for releasing service also activate the fire alarm system. This is necessary for compliance with NFPA 101.

Exception 2 is provided with clarifying language indicating the airflow method is not acceptable in a Group I-2. This is required for compliance with NFPA 101.

Exception 3 is amended to specify one-hour fire rated doors installed across corridors be provided with positive latching. Such doors when not provided with latching do not provide an effective smoke or fire barrier. Due to air pressure differentials, such doors may not remain closed when latching is not provided.

Exception 6 is added to indicate the scope of a total detection system for this application. Without this amendment, a total detection system installed in accordance with NFPA 72 would require detection in all areas including attics, subfloor spaces and

above ceilings. This amendment limits the installation of detection system to locations served by the HVAC system.

**907.9.1.2** Employee work areas. Where employee work areas have audible alarm coverage, the notification appliance circuits serving the employee work areas shall be initially designed with a minimum of 20 percent spare capacity to account for the potential of adding visible notification appliances in the future to accommodate hearing impaired employees. [F]

**Editor's note: paragraph text follows the annotation** 

Visual alarm-signaling devices are allowed to substitute for audible devices in patient use areas of I-2 occupancies.

(Sec. 909.5.2)

3. In Group I-2, where such doors are installed across corridors, a pair of opposite-swinging doors without a center mullion shall be installed having vision panels with fire protection-rated glazing materials in fire protection-rated frames, the area of which shall not exceed that tested. The doors shall be close-fitting within operational tolerances and shall not have undercuts, louvers or grilles. The doors shall have head and jamb stops, astragals or rabbets at meeting edges and shall be automatic-closing by smoke detection in accordance with Section 715.4.7.3. Positive-latching devices are not required.

**Purpose/Rationale:** Positive latching is consistant with existing CBC code language. Positive latching provides a impoved sealing affect to

**1003.2 Ceiling height.** The means of egress shall have a ceiling height of not less than 7 feet 6 inches (2286 mm).

### **Exceptions:**

- 1. Sloped ceilings in accordance with Section 1208.2.
- **1.** 2. Ceilings of dwelling units and sleeping units within residential occupancies in accordance with Section 1208.2.
- **1003.3** 3. Allowable projections in accordance with Section 1003.3.
- 4. Stair headroom in accordance with Section 1009.2.
- **5.** Door height in accordance with Section 1008.1.1.
- <u>6. In Group I-2 occupancies, the means of egress shall have a ceiling height of not less than 8 feet (2439mm).</u>

## **Purpose/Rationale:**

(N) Acute care hospitals and skilled nursing facilities must, in addition to state and local building codes, also comply with NFPA 101-2000 (Life Safety Code) requirements enforced by CMS and/or JCAHO. Coordination of Building Code and Fire Code requirements with NFPA 101 provisions is essential for these health care facilities. Adopting provisions consistent with NFPA 101 requirements incurs no additional costs and avoids future liability related to noncompliance with federally mandated requirements.

**1003.3 Protruding objects.** Protruding objects shall comply with the requirements of Sections 1003.3.1 through 1003.3.4.

Exception: In Group I-2 and Group I-2.1 occupancies, protruding objects shall not extend more than 12 inches (305 mm) below the minimum ceiling height required by Section 1003.2.

### **Purpose/Rationale:**

(N) An exception specific it Group I-2 is necessary in order to coordinate with OSHPD requirements for ceiling height. The exception is placed at this location so as to avoid the adoption of the 50% ceiling area reduction in section 1003.3.1. A reduction in ceiling height for the Group I-2 is not acceptable. The additional ceiling height is necessary to allow additional capacity for the accumulation of smoke when it is necessary to relocate patients to a safe area or defend patients in place area.

**1003.5 Elevation change.** Where changes in elevation of less than 12 inches (305 mm) exist in the means of egress, sloped surfaces shall be used. Where the slope is greater than one unit vertical in 20 units horizontal (5-percent slope), ramps complying with Section 1010 shall be used. Where the difference in elevation is 6 inches (152 mm) or less, the ramp shall be equipped with either handrails or floor finish materials that contrast with adjacent floor finish materials.

#### **Exceptions:**

- 1. A single step with a maximum riser height of 7 inches (178 mm) is permitted for buildings with occupancies in Groups F, H, R-2 and R-3 and Groups S and U at exterior doors not required to be accessible by Chapter 11.
- 2. A stair with a single riser or with two risers and a tread is permitted at locations not required to be accessible by Chapter 11, provided that the risers and treads comply with Section 1009.3, the minimum depth of the tread is 13 inches (330 mm) and at least one handrail complying with Section 1012 is provided within 30 inches (762 mm) of the centerline of the normal path of egress travel on the stair.
- 3. A step is permitted in aisles serving seating that has a difference in elevation less than 12 inches (305 mm) at locations not required to be accessible by Chapter 11, provided that the risers and treads comply with Section 1025.11 and the aisle is provided with a handrail complying with Section 1025.13.

Any change in elevation in a corridor <u>or exit passageway</u> serving nonambulatory persons in a Group I-2 occupancy shall be by means of a ramp or sloped walkway.

#### **Purpose/Rationale:**

(N) This proposal is intended to facilitate the evacuation and relocation of patients by means of beds and gurneys. For this purpose, no other method of changing elevations can be found acceptable. If not amended, model code would allow changes in elevation in an exit passageway to be by steps. In hospitals where patients may need to be transported by means of beds, gurneys or wheelchairs, steps would necessitate the use of additional personnel to assist in moving the bed, gurney or wheelchair over the steps and would impede the movement of patients. This is critical during emergency situations when it is important to evacuate/relocate patients quickly.

1008.1.1 Size of doors. The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of not less than 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in a Group I-2 occupancy used for the movement of beds and litter patients shall provide a clear width not less than 41.5 44 inches (1054 mm). The height of doors shall not be less than 80 inches (2032 mm).

**Purpose/Rationale:** (N) This proposal is necessary to provide adequate clear width for the passage of beds, gurneys and similar equipment. The IBC has reduced the clear width of door openings from 44 inches to 41.5 inches. This proposal reinstates the clear width at 44 inches. The reduction in clear width contained in the IBC is a problem. The width of a gurney with an I.V. attached on one side is 40.5 inches. The width of hospital beds produced by the major manufactures can be 41.5 inches. The clear width of 41.5 inches allowed by the IBC is insufficient for the passage of beds and gurneys. Adequate clear width is critical during emergency situations when it is important to evacuate/relocate patients quickly.

1008.1.1.1 Projections into clear width. There shall not be projections into the required clear width lower than 34 inches (864 mm) above the floor or ground. Projections into the clear opening width between 34 inches (864 mm) and 80 inches (2032 mm) above the floor or ground shall not exceed 4 inches (102 mm).

Exception: In a Group a I-2 occupancy, there shall be no projections into the clear width of means of egress doors used for the movement of beds and litter patients.

#### **Purpose/Rationale:**

(N) This proposal is necessary to provide adequate clear width for the passage of beds, gurneys and similar equipment. The IBC has reduced the clear width of door openings from 44 inches to 41.5 inches. This proposal reinstates the clear width at 44 inches. The reduction in clear width contained in the IBC is a problem. The width of a gurney

with an I.V. attached on one side is 40.5 inches. The width of hospital beds produced by the major manufactures can be 41.5 inches. The clear width of 41.5 inches allowed by the IBC is insufficient for the passage of beds and gurneys. If projections such as door hardware or handrails, are allowed to project into the clear width, the 41.5 inches specified in the IBC for Group I-2 could be reduced to 37.5 inches. The clear width of 44" proposed by the proposed amendment could be reduced to 40". Neither dimension is sufficient for the passage of beds or gurneys. Adequate clear width is critical during emergency situations when it is important to evacuate/relocate patients quickly.

1008.1.2 Door swing. Egress doors shall be side-hinged swinging.

### **Exceptions:**

1. Private garages, office areas, factory and storage areas with an occupant load of 10 or less.

**1.**2. Group I-3 occupancies used as a place of detention.

**13.** Critical or intensive care patient rooms within suites of health care facilities.

**4.** Doors within or serving a single dwelling unit in Groups R-2 and R-3.

**5.** In other than Group H occupancies, revolving doors complying with Section 1008.1.3.1.

6. In other than Group H occupancies, horizontal sliding doors complying with Section 1008.1.3.3 are permitted in a means of egress.

**1.** 7. Power-operated doors in accordance with Section 1008.1.3.2.

**№**8. Doors serving a bathroom within an individual sleeping unit in Group R-1.

Doors shall swing in the direction of egress travel where serving an occupant load of 50 or more persons or a Group H occupancy. <u>In a Group I-2 occupancy</u>, all required exterior egress doors shall open in the direction of egress regardless of the occupant load served.

The opening force for interior side-swinging doors without closers shall not exceed a 5-pound (22 N) force. For other side-swinging, sliding and folding doors, the door latch shall release when subjected to a 15-pound (67 N) force. The door shall be set in motion when subjected to a 30-pound (133 N) force. The door shall swing to a full-open position when subjected to a 15-pound (67 N) force. Forces shall be applied to the latch side.

### **Purpose/Rationale:**

(N) This amendment reinstates the provision requiring exterior exit doors in a Group I-2 swing in the direction of egress regardless of occupant load. In hospitals where patients may need to be transported by means of beds, gurneys or wheelchairs, egress doors that open against the direction of egress would necessitate the use of additional personnel to assist in moving the bed, gurney or wheelchair over the steps and would impede the movement of patients. This is critical during emergency situations when it is important to evacuate/relocate patients quickly.

1008.1.8.6 Delayed egress locks. Approved, listed, delayed egress locks shall be permitted to be installed on doors serving any occupancy except Group A, E and H occupancies in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or and an approved automatic smoke or heat detection system installed in accordance with Section 907, provided that the doors unlock in accordance with Items 1 through 6 below. A building occupant shall not be required to pass through more than one door equipped with a delayed egress lock before entering an exit.

1. The doors unlock upon actuation of the automatic sprinkler system or automatic fire smoke detection system.

2. The doors unlock upon loss of power controlling the lock or lock mechanism to any one of the following:

- 2.1 The lock or lock mechanism.
- 2.2 The automatic smoke detection system.
- 2.3 Means of egress illumination as required by Section 1006.

3. The door locks shall have the capability of being unlocked by a signal from an approved location and a fire command center, when provided.

4. The initiation of an irreversible process which will release the latch in not more than 15 seconds shall be initiated when a force of not more than 15 pounds (67 N) is applied for 1 second to the release device. Initiation of the irreversible process shall activate an audible signal in the vicinity of the door. Once the door lock has been released by the application of force to the releasing device, relocking shall be by manual means only at the door.

Exception: Where approved, a delay of not more than 30 seconds is permitted.

5. A sign shall be provided on the door located above and within 12 inches (305 mm) of the release device reading: PUSH UNTIL ALARM SOUNDS. DOOR CAN BE OPENED IN 15 [30] SECONDS. Sign lettering shall be at least 1 inch (25 mm) in height and shall have a stroke of not less than 1/8 inch (3.2 mm). In addition, tactile exit signs shall be provided in accordance to Section 1011.3.

**5.** Emergency lighting shall be provided at the door.

### **Purpose/Rationale:**

(N) (N) Delayed egress locks restrict immediate egress from occupancies. Both fire sprinkler protection and smoke detection should be provided so that the hazards associated with the delay created by the delayed egress mechanism is minimized. Additional assurances are needed to minimize the dangers associated with the loss of power when occupants are trying to egress a building and encounter the delayed egress hardware.

The proposed amendments reinstate UBC requirements, which require both fire sprinkler protection and smoke detection. In addition, reference to the Fire Code is provided for additional information related to the installation of the required smoke detection system.

The amendment also includes additional revisions for clarification of requirements.

The amendment also includes additional revisions for clarification of requirements pertaining to the loss of power, relocking by manual means and the legibility of the required sign.

**1008.1.9 Panic and fire exit hardware.** Where panic and fire exit hardware is installed, it shall comply with the following:

- 1. The actuating portion of the releasing device shall extend at least one-half of the door leaf width.
- **1.2.** The maximum unlatching force shall not exceed 15 pounds (67 N).

Each door in a means of egress from a Group A, er E or 1-2 occupancy having an occupant load of 50 or more and any Group H occupancy shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.

Exception: A main exit of a Group A occupancy in compliance with Section 1008.1.8.3, Item 2.

Electrical rooms with equipment rated 1,200 amperes or more and over 6 feet (1829 mm) wide that contain overcurrent devices, switching devices or control devices with exit access doors must be equipped with panic hardware and doors must swing in the direction of egress.

If balanced doors are used and panic hardware is required, the panic hardware shall be the push-pad type and the pad shall not extend more then one-half the width of the door measured from the latch side.

**1008.1.9 Panic and fire exit hardware.** Where panic and fire exit hardware is installed, it shall comply with the following:

1. The actuating portion of the releasing device shall extend at least one-half of the door leaf width.

(Editor's note: paragraph text follows the annotation)

2. The maximum unlatching force shall not exceed 15 pounds (67 N).

Each door in a means of egress from a Group A<sub>2</sub> or E, <u>I-2 or I-2.1</u> occupancy having an occupant load of 50 or more and any Group H occupancy shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.

# **Purpose/Rationale:**

(N) This amendment reinstates the provision requiring panic hardware on each door in a means of egress serving 50 or more in a Group I-2 or I-2.1 occupancies. In hospitals where patients may need to be transported by means of beds, gurneys, or wheelchair, egress doors that are not equipped with panic hardware would necessitate the use of additional personnel to assist in moving the bed, gurney or wheelchair over steps and would impede the movement of patients. This is critical during emergency situations when it is important to evacuate/relocate patients quickly.

**1009.1 Stairway width.** The width of stairways shall be determined as specified in Section 1005.1, but such width shall not be less than 44 inches (1118 mm). See Section 1007.3 for accessible means of egress stairways.

## **Exceptions:**

1. Stairways serving an occupant load of less than 50 shall have a width of not less than 36 inches (914 mm).

**2**. Spiral stairways as provided for in Section 1009.8.

**5.** Aisle stairs complying with Section 1025.

4. Where an incline platform lift or stairway chairlift is installed on stairways serving occupancies in Group R-3, or within dwelling units in occupancies in Group R-2, a clear passage width not less than 20 inches (508 mm) shall be provided. If the seat and platform can be folded when not in use, the distance shall be measured from the folded position.

Means of egress stairs in a Group I-2 occupancy used for the movement of beds and litter patients shall provide a clear width not less than 41.5 44 inches (1118 mm).

## **Purpose/Rationale:**

(N) This proposal is necessary to provide adequate clear width for the passage of litters, gurneys and similar equipment. The IBC allows a stairway width of 36 inches serving an occupant load of 50 or less. The IBC allows a stairway 44 inches in width for other occupant loads. The IBC allows handrails and other projections to reduce the clear width 4.5 inches. This proposal reinstates the clear width at 44 inches in Group I-2 when stairways serve bed or litter patients.

The reductions in clear width contained in the IBC are a problem. The length and width of gurneys and litters will not allow the movement of patients in stairways without lifting patients and equipment above the newel posts and handrails. Such an effort would necessitate the use of additional personnel to assist in moving the patients through stairways. Adequate clear width is critical during emergency situations when elevators are not available including extended power interruptions, earthquakes and fires. Stairways may be needed to relocate or evacuate patients when other building systems fail or an emergency occurs when it is important to evacuate/relocate patients quickly.

1011.6 Floor-level exit signs. Where exit signs are required by Section 1011.1, additional approved low-level exit signs which are internally or externally illuminated, photoluminescent or self-luminous, shall be provided in all interior corridors of Group I occupancies.

# **Exceptions:**

- 1.Group I occupancies which are provided with smoke barriers constructed in accordance with Section 407.4.
- 2. Group I, Division 3 occupancies.

The bottom of the sign shall not be less than 6 inches (152 mm) or more than 8 inches (203 mm) above the floor level and shall indicate the path of exit travel. For exit and exit-access doors, the sign shall be on the door or adjacent to the door with the closest edge of the sign or marker within 4 inches (102 mm) of the door frame.

**NOTE:** Pursuant to Health and Safety Code Section 13143, this California amendment applies to all newly constructed buildings or structures subject to this section for which a building permit is issued (or construction commenced, where no building permit is issued) on or after January 1, 1989.

1011.5.3 Power source. Exit signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes in case of primary power loss, the sign illumination means shall be connected to an emergency power system provided from storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2702.

<u>1011.6</u> Floor-level exit signs. Where exit signs are required by Section 1011.1, additional approved low-level exit signs which are internally or externally illumonated, photluminescent or self-luminous, shall be provided in all interior corridors of Group I occupancies.

## **Exceptions:**

- 1.Group I occupancies which are provided with smoke barriers constructed in accordance with Section 407.4
  - 2. Group I, Division 3 occupancies.

The bottom of the sign shall not be less than 6 inches (152 mm) or more than 8 inches (203 mm) above the floor level and shall indicate the path of exit travel. For exit and exit access doors, the sign shall be on the door or adjacent to the door with the closest edge of the sign or marker within 4 inches (102 mm) of the door frame.

Note: Pursuant to Health and Safety Code Section 13143, this California amendment applies to all newly constructed buildings or structures subject to this section for which a building permit is issued (or construction commenced, where no building permit is issued) on or after January 1, 1989.

Purpose/Rationale: (S) Statuatory requirement

**1012.7 Projections.** On ramps, the clear width between handrails shall be 36 inches (914 mm) minimum. Projections into the required width of stairways and ramps at each handrail shall not exceed 4.5 inches (114 mm) at or below the handrail height. Projections into the required width shall not be limited above the minimum headroom height required in Section 1009.2.

Exception: In Group I-2 occupancy, on ramps and stairways used for the movement of bed and litter patients, the clear width between handrails shall be 44 inches (1118 mm) minimum.

### **Purpose/Rationale:**

(N) This proposal is necessary to provide adequate clear width for the passage of beds, litters, gurneys and similar equipment. The IBC allows the clear width between ramp handrails to be 36 inches. The IBC allows a stairway width of 36 inches serving an occupant load of 50 or less. The IBC allows a stairway 44 inches in width for other occupant loads. The IBC allows handrails and other projections to reduce the clear width 4.5 inches. This proposal reinstates the clear width at 44 inches in Group I-2 when ramps or stairways serve bed or litter patients.

The reductions in clear width contained in the IBC are a problem. The length and width of gurneys and litters will not allow the movement of patients in stairways or on ramps without lifting patients and equipment above the newel posts and handrails. Such an effort would necessitate the use of additional personnel to assist in moving the patients through stairways. Adequate clear width is critical during emergency situations when elevators are not available including extended power interruptions, earthquakes and fires. Stairways and ramps may be needed to relocate or evacuate patients when other building systems fail or an emergency occurs when it is important to evacuate/relocate patients quickly.

# (Sec. 1014.2)

- 4. Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.
- 5. Exits shall not pass through any room subject to locking except in Group I, Division 2 occupancies classified as mental hospitals and Group I, Division 3 occupancies classified as detention facilities.

### **Purpose/Rationale:**

(N) This amendment is retained for clarification. If not specifically excepted, it may not be clear that it may be appropriate to lock some rooms or areas to restrain the occupants.

<u>1014.2.2.1</u> Basement exits. All rooms below grade shall have not less than one exit access that leads directly to an exterior exit door opening directly to an exit discharge at grade plane or the public way.

## Purpose/Rationale:

(N) This amendment reinstates the UBC provision that requires a direct exit to grade when a Group I-2 is located in a basement. It is much more difficult to evacuate patients up stairs. Evacuating upstairs requires additional staff. Fires occurring in basements are more difficult to extinguish. Smoke from basement fires will rise to higher levels, much of which may enter stairwells when evacuation is necessary and may be underway.

A direct exterior exit to grade plane provides an egress path that does not encounter stairs or smoke filled enclosures. Such a route will also be available should elevators not be useable due to a fire, earthquake or power outage.

(Sec. 1014.2)

5. For rooms other than patient sleeping rooms located within a suite, exit access travel from within the suite shall be permitted through two intervening rooms where the travel distance to the exit access door is not greater than 50 feet (15 240 mm).

Suites of sleeping rooms shall not exceed 5,000 square feet (465 m²). Suites of rooms other than patient sleeping rooms shall not exceed 10,000 square feet (929 m²). Any patient sleeping room, or any suite that includes patient sleeping rooms, of more than 1,000 square feet (93 m²) shall have at least two exit access doors remotely located from each other. Any room or suite of rooms other than patient sleeping rooms of more than 2,500 square feet (232 m²) shall have at least two access doors remotely located from each other. The travel distance between any point in a Group I-2 occupancy and an exit access door in the room shall not exceed 50 feet (15 240 mm). The travel distance between any point in a suite of sleeping rooms and an exit access door of that suite shall not exceed 100 feet (30 480 mm).

<u>Each suite of rooms shall be separated from the remainder of the building by not less</u> than a one-hour fire barrier.

Egress for portions of the building outside the suite shall not require passage through the suite.

#### **Purpose/Rationale:**

(N) In lieu of corridors with smoke partitions, suites are provided in health care occupancies. These spaces are partitioned or open areas of 5,000 to 10,000 square feet with no fire rated or smoke separations.

The first amendment reinstates the requirement for a fire barrier to define the perimeter of each suite. Without a clearly defined perimeter, it would not be possible to design or review a suite for compliance with the maximum area or the maximum travel distance requirements.

The second amendment provides clarification that a suite shall not be used for egress from other portions of the building. While this requirement can be found in other provisions of Chapter 10, it is provided here for additional clarity and direction.

(Sec. 1017.1)

4. A fire-resistance rating is not required for corridors in an occupancy in Group B which is a space requiring only a single means of egress complying with Section 1015.1.

#### TABLE 1017.1 CORRIDOR FIRE-RESISTANCE RATING

		REQUIRED FIRE-RESISTANCE RATING (hours)	
OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	Without sprinkler system	With sprinkler system <sup>c</sup>
H-1, H-2, H-3	All	Not Permitted	1

H-4, H-5	Greater than 30	Not Permitted	1
A, B, E, F, M, S, U	Greater than 30	1	0
R	Greater than 10	Not Permitted	0.5
I-2 <sup>a</sup> , I-4	All	Not Permitted <sup>₫</sup> _	0
I-1, I-3	All	Not Permitted	1 <sup>b</sup>

- a. For requirements for occupancies in Group I-2, see Section 407.3.
- b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.7.
- c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.
- d. In existing Group I, Division 2 Occupancies, the corridor fire-resistance rating shall be 1-hour when the fire area is not equipped with an automatic sprinkler system in accordance with Section 903.1.1

#### Purpose/Rationale:

(N) The table has been revised with a footnote to acknowledge that not all corridors in Group I-2 occupancies will be protected by fire sprinklers and to require such corridors be 1-hour fire resistive construction when they are not protected by fire sprinklers.

With IBC, there is a presumption that the Group I-2 will be provided with fire sprinkler protection. This is however not always true. Hospitals are extremely dynamic buildings undergoing constant change. Existing hospitals undergoing remodeling may not be protected by fire sprinklers. Clarification is necessary to indicate that, when an area is not protected by fire sprinklers, reductions in corridor protection are not appropriate.

(Sec. 1019.2)

### **TABLE 1019.2 BUILDINGS WITH ONE EXIT**

OCCUPANCY	MAXIMUM HEIGHT OF BUILDING ABOVE GRADE PLANE	MAXIMUM OCCUPANTS (OR DWELLING UNITS) PER FLOOR AND TRAVEL DISTANCE
$\begin{array}{c} A,\ B^{\scriptscriptstyle d},\ E^{\scriptscriptstyle e},\ F,\ M,\\ U \end{array}$	1 Story	49 occupants and 75 feet travel distance
H-2, H-3	1 Story	3 occupants and 25 feet travel distance
H-4, H-5, I, R	1 Story	10 occupants and 75 feet travel distance
<u>I-2</u>	1 Story	8 occupants and 50 feet travel distance
Sª	1 Story	29 occupants and 100 feet travel distance
B <sup>b</sup> , F, M, S <sup>a</sup>	2 Stories	30 occupants and 75 feet travel distance
R-2	2 Stories°	4 dwelling units and 50 feet travel distance

#### **Purpose/Rationale:**

(N) A row has been has been added to Table 1019.2 to separate Group I-2 requirements from other Group I occupancies. The number of occupants is reduced from 10 occupants to 8 occupants and the travel distance has been reduced from 75 feet to 50 feet when two exits are required. The revised requirements more closely resemble the requirements of section 1013.2.2 for Group

**1021.2 Width.** The width of exit passageways shall be determined as specified in <u>Section 1005.1</u> but such width shall not be less than 44 inches (1118 mm), except that exit passageways serving an occupant load of less than 50 shall not be less than 36 inches (914 mm) in width.

The required width of exit passageways shall be unobstructed.

**Exception:** Doors, when fully opened, and handrails, shall not reduce the required width by more than 7 inches (178 mm). Doors in any position shall not reduce the required width by more than one-half. Other nonstructural projections such as trim and similar decorative features are permitted to project into the required width 1.5 inches (38 mm) on each side.

The clear width of exit passageways in a Group I-2 occupancy used for the movement of beds and litters shall be 44" (1118) minimum.

### **Purpose/Rationale:**

(N) This proposal is necessary to provide adequate clear width for the passage of beds, litters, gurneys and similar equipment. The IBC allows an exit passageway width of 36 inches serving an occupant load of 50 or less. The IBC allows an exit passageway 44 inches in width for other occupant loads. The IBC allows handrails and other projections to reduce the clear width 4.5 inches. This proposal reinstates the clear width at 44 inches in Group I-2 when exit passageways serve bed or litter patients.

The reductions in clear width contained in the IBC are a problem. The length and width of beds, gurneys and litters will not allow the movement of patients in passageways without encountering projections and obstructions that limit free passage. Such an effort would necessitate the use of additional personnel to assist in moving the patients through obstructed passageways. Adequate clear width is critical during emergency situations when elevators are not available including extended power interruptions, earthquakes and fires. Like stairways and ramps, passageways may be needed to relocate or evacuate patients when other building systems fail or an emergency occurs when it is important to evacuate/relocate patients quickly.